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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,812	03/28/2001	Biaoyang Lin	P-IS 4373	5002
23601	7590	02/24/2004	EXAMINER	
CAMPBELL & FLORES LLP 4370 LA JOLLA VILLAGE DRIVE 7TH FLOOR SAN DIEGO, CA 92122			DAVIS, MINH TAM B	
			ART UNIT	PAPER NUMBER
			1642	

DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/821,812

Applicant(s)

LIN, BIAOYANG

Examiner

MINH-TAM DAVIS

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-32 and 34-38 is/are pending in the application.
- 4a) Of the above claim(s) 27-32 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 38 is/are allowed.
- 6) ☒ Claim(s) 24, 26, 34-37 is/are rejected.
- 7) ☒ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 05/25/01
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Applicant adds new claims 34-38, which are related to claims 24-26 and are not new matters.

Accordingly, claims 24-26, 34-38 are being examined.

This application contains claims drawn to an invention nonelected with traverse. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

The following are the remaining rejections.

Claim 38 is free of prior art and is allowable.

### **OBJECTION**

Claim 25 appears to be free of prior art but is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent forms.

### **INFORMATION DISCLOSURE STATEMENT**

The references from the information disclosure statement of 06/25/02 have been reviewed, and a signed PTO-1449 is enclosed therewith.

### **REJECTION UNDER 35 USC 112, FIRST PARAGRAPH, WRITTEN DESCRIPTION**

Rejection under 35 USC 112, first paragraph of claims 24, 26 pertaining to lack of a clear written description of variants of SEQ ID NO:5 remains for reasons already of record in paper of 05/23/04. New claims 34-37 are rejected for the same reasons of record.

Applicant argues as follows:

Applicant submits that the specification provides written description sufficient to reasonably convey to one skilled in the art that Applicant had possession of the invention at the time the application was filed. In this regard, the specification discloses isolation of the human ARP3 CDNA (Example 1), providing SEQ ID NO:5 as an exemplary ARP3 polypeptide. Additional written description is provided for the ARP3 polypeptides of the invention, for example, at page 24, lines 12-16, which indicates that an ARP3 polypeptide has 45% or more amino acid sequence identity to SEQ ID NO:5, and at page 24, lines 27-30, which indicates that an ARP3 polypeptide can be, for example, a species homolog such as a mammalian or non-mammalian homolog of human ARP3.

Specifically, each of the claimed ARPS polypeptides and fragments has been described in reference to the structure of amino acid sequence SEQ ID NO:5, provided in Figure 3, rather than by a functional activity. The ARP3 polypeptide of claim 2 is structurally defined by containing an amino acid sequence having at least 45% amino acid identity with residues 1 to 537 of SEQ ID NO:5; the ARP3 polypeptide of claim 25 is structural defined by containing the amino acid sequence of SEQ ID NO:5; and the ARP3 polypeptide fragment of claim 26 is structurally defined by containing at least ten

contiguous amino acids of the amino acid sequence SEQ ID NO:5. Thus, the specification satisfies the written description requirement by disclosing a precise structural definition for each of the claimed ARP3 polypeptides and fragments.

Applicant's arguments set forth in paper of 12/04/03 have been considered but are not deemed to be persuasive for the following reasons:

It is noted that structure of species homologs such as a mammalian or non-mammalian homolog of human ARP3 is not disclosed in the specification. The specification fails to describe variants of SEQ ID NO:5 by the test set out in Lilly. The specification describes only a single polypeptide, SEQ ID NO:5. Therefore, it necessarily fails to describe a representative number of such species. In addition, the specification also does not describe structural features common to the members of the genus, which features constitute a substantial portion of the genus.

Thus the claims encompass unrelated sequences with unknown structure and function, provided that said sequences have at least 45%, 65%, 75%, 85% or 95% identity with SEQ ID NO:5.

#### **REJECTION UNDER 35 USC 112, FIRST PARAGRAPH, SCOPE**

Rejection under 35 USC 112, first paragraph of claims 24, 26 pertaining to lack of enablement of variants of SEQ ID NO:5 remains for reasons already of record in paper of 05/23/04. New claims 34-37 are rejected for the same reasons of record.

Applicant argues that it is only routine work to make and use the claimed variants of SEQ ID NO:5 (ARP3 polypeptides), for example as antigens for preparation of

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monoclonal antibodies or antisera. Applicant argues that using the guidance in the specification one would be able to isolate another species homolog such as murine, bovine and primate homolog, and that the use of said non-human homologs would be the same as that use of SEQ ID NO:5.

Concerning claim 26, Applicant argues that claim 26 contains an exact portion of the full length ARP3 sequence, and thus does not encompass variants of SEQ ID NO:5.

Applicant's arguments set forth in paper of 12/04/03 have been considered but are not deemed to be persuasive for the following reasons:

The claims encompass unrelated sequences with unknown structure and function, provided that said sequences have at least 45%, 65%, 75%, 85% or 95% identity with SEQ ID NO:5. Applicant has not taught how to make these variants of SEQ ID NO:5, such that they would still have the function of SEQ ID NO:5. Further, it would be undue experimentation to screen for species homolog such as murine, bovine and primate homolog of SEQ ID NO:5.

Concerning claim 26, due to the language "comprising", claim 26 encompasses 7 sequences with unknown structure and function, provided said sequences share at least 10 contiguous amino acids of SEQ ID NO:5.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH-TAM DAVIS whose telephone number is 571-272-0830. The examiner can normally be reached on 9:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, YVONNE EYLER can be reached on 571-272-0871. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

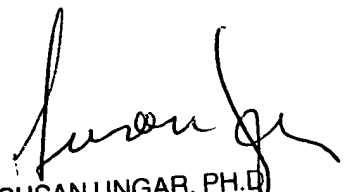
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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MINH TAM DAVIS

February 19, 2004



SUSAN UNGAR, PH.D.  
PRIMARY EXAMINER